ORDER NO. SD7907-1600

Service Manual

SL-B3/K

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SM-SLB3
SERVICE MANUAL

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Turntable System

SL-B3

(XA),(XG),(XGF),(XGB),
(XGE),(XAL),(E)

SL-B3K

(XAL),(XG),(E)

- The models SL-B3 (XA) and SL-B3K (XA) are available in Asia, Latin.
- America, Middle East and Africa only.
- The models SL-B3 (XG) and SL-B3K (XG) are available in European only.
- The model SL-B3 (XGF) is available in France only.
- The model SL-B3 (XGB) is available in Belgium only.
- The model SL-B3 (XGE) is available in United Kingdom only.
- The model SL-B3 (XAL) is available Australia only.
- The models SL-B3 (E) and SL-B3K (E) are available in Scandinavia only.
- SL-B3 is of silver finish.
- SL-B3K is of black finish.

SPECIFICATIONS

Specifications subject to change without notice.
Weight and dimensions shown are approximate.

General

Power supply:	~110-120/220-240V, 50 or 60 Hz
Power consumption:	3 W
Dimensions: (W x H x D)	43.0 x 12.6 x 37.5 cm (16-59/64" x 4-3/32" x 14-49/64")
Weight:	4.6 kg (10.1 lb.)

Turntable section

Type:	Automatic turntable Auto start Auto return Auto stop Repeat play
Drive method:	Belt drive
Motor:	Frequency Generator Servo DC motor
Turntable platter:	Aluminum diecast. 30.4 cm
Turntable speeds:	33-1/3 rpm and 45 rpm
Pitch control:	6% adjustment range
Wow and flutter:	0.045% WRMS (JIS C5521) +0.06% peak (IEC 98A Weighted)
Rumble:	−70 dB (IEC 98A Weighted)

Tonearm section

Type:	Universal tonearm
Effective length:	230 mm (9-1/16")
Overhang	15 mm (19/32")
Effective mass:	12 g (without cartridge)
Tracking error angle:	Within 2°32′ at the outer groove of 30 cm (12") record Within 0°32′ at the inner groove of 30 cm (12") record
Offset angle:	22°
Stylus pressure adjustment range:	0 – 2.5 g
Applicable cartridge weight range:	6 – 9.5 g 14.5 – 17.5 g (including headshell)
Headshell weight:	8 g

Cartridge section

Model No.	EPC-270C
Type:	Moving magnet
Frequency response:	20 Hz to 25 kHz 20 Hz to 15 kHz ± 2 dB
Output voltage:	3.2 mV at 1 kHz 5 cm/s. zero to peak lateral velocity
Output voltage:	[9 mV at 1 kHz 10 cm/s. zero to peak 45° velocity (DIN 45 500)]
Channel separation:	25 dB at 1 kHz
Channel balance:	Within 2 dB at 1 kHz
Compliance (dynamic):	10 x 10^{-6} cm/dyne at 100 Hz
Stylus pressure:	1.75±0.25 g (17.5±2.5mN)
Load impedance:	47 kΩ to 100 kΩ
Weight:	6.0 g (cartridge only)
Replacement stylus:	EPS-270SD

Technics

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

TECHNISCHE DATEN

Änderungen der technischen Daten vorbehalten.
Die angegebenen Gewichts- und Abmessungsdaten sind ungefähre Werte.

Allgemeine Daten

Stromversorgung:	~110-120/220-240 V. 50/60 Hz Wechselstrom
Leistungsaufnahme:	3 W
Abmessungen (B x H x T):	43.0 x 12.6 x 37.5 cm
Gewicht:	4.6 kg

Plattenspieler

Typ:	Automatischer Plattenspieler Startautomatik Rückführautomatik Stopautomatik Wiederhol-Betrieb
Antrieb:	Riemenantrieb
Motor:	Frequenzgenerator-Servo-Gleichstrommotor
Plattenteller:	Aluminium-Spritzguß, 30.4 cmϕ
Plattenteller-Drehzahlen:	33-1/3 und 45 U/min
Drehzahl-Feinregulierung:	6% Einstellbereich
Gleichlaufschwankungen:	0.045% WRMS (JIS C5521) ±0.06% Spitze (IEC 98A bewertet)
Rumpel-Fremdspannungsabstand:	−70 dB (IEC 98A bewertet)

Tonarm

Typ:	Universal-Tonarm
Effektive Länge:	230 mm
Überhang:	15 mm
Effektive Masse:	12 g (ohne Tonabnehmer)
Spurfehlwinkel:	2°32′ bei der Einlaufrille einer 30 cm-Platte 0°32′ bei der Auslaufrille einer 30 cm-Platte
Kröpfungswinkel:	22°
Auflagekraft-Einstellbereich:	0–2.5 g
Zulässiger Tonabnehmer-Gewichtbereich:	6–9.5 g 14–17.5 g (einschließlich Tonarmkopf)
(mit Zusatzgewicht):	3–6.5 g 10.5–14 g (einschließlich Tonarmkopf)
Tonarmkopf-Gewicht:	8 g

Tonabnehmer

Modell-Nummer:	EPC-270C
Typ:	Magnetischer Tonabnehmer
Frequenzgang:	20 Hz bis 25 kHz 20 Hz bis 15 kHz ±2 dB
Ausgangsspannung:	3.2 mV bei 1 kHz 5 cm/s. Null-zu-Spitze, lateral [9 mV bei 1 kHz 10 cm/s. Null-zu-Spitze, 45° (DIN 45 500)]
Kanaltrennung:	25 dB bei 1 kHz
Kanalabweichung:	Innerhalb 2 dB bei 1 kHz
Nachgiebigkeit (dynamisch):	10 x 10^{-6} cm/dyn bei 100 Hz
Auflagekraft:	1.75 ±0.25 g (17.5 ±2.5 mN)
Impedanz:	47 kΩ bis 100 kΩ
Gewicht:	6.0 g (ohne Tonarmkopf)
Ersatznadel:	EPS-270SD

SPECIFICATIONS

Les spécifications sont susceptibles d'être modifiées sans préavis.
Les poids et les dimensions donnés sont approximatifs.

Généralités

Alimentation:	Alternatif 110-120/220-240V, 50 ou 60 Hz
Consommation:	3 W
Dimensions: (L x H x P)	43.0 x 12.6 x 37.5 cm
Poides:	4.6 kg

Platine de lecture

Type:	Platine automatique Démarrage automatique Retour automatique Arrêt automatique Audition répétée
Système d'entrainement:	Entraînement à courroie
Moteur:	Servo-moteur C.C. à générateur de fréquences
Plateau de lecture:	Aluminium moulé sous pression, 30.4 cm
Vitesses de rotation:	33-1/3 et 45 t/p.m
Réglage d'écart:	Plage de réglage de 6%
Pleurage et scintillement:	0.045% de valeur efficace (JIS C5521) ±0.06% de crête (IEC 98A Pondéré)
Ronflement:	−70 dB (IEC 98A Pondéré)

Bras de lecture

Type:	Bras de lecture universel
Longueur effective:	230 mm
Porte-à-faux:	15 mm
Masse réelle:	12 g (sans la cellule pick-up)
Angle d'erreur de piste:	En deçà de 2°32′ au sillon extérieur d'un disque de 30 cm En deçà de 0°32′ au sillon intérieur d'un disque de 30 cm
Angle de décalage:	22°
Plage de réglage de la pression d'appui:	0–2.5 g
Gamme du poids de la cellule pick-up utilisable:	6–9.5 g 14–17.5 G (y compris la coque porte-cellule)
Poids de la cellule:	8 g

Cellule pick-up

No. du modèle:	EPC-270C
Type:	Aimant mobile
Réponse en fréquence:	20 Hz à 25 kHz 20 Hz à 15 kHz ±2 dB
Tension de sortie:	3.2 mV à 1 kHz; 5 cm/s., séro à vitesse latérale de crête (9 mV à 1 kHz 10 cm/s., zéro à vitesse 45° de crête [DIN 45 500])
Séparation de canal:	25 dB à 1 kHz
Equilibrage des canaux:	En deçá de 2 dB à 1 kHz
Elasticité (dynamique):	10 x 10^{-6} cm/dyne à 100 Hz
Pression de la pointe de lecture:	1.75 ±0.25 gramme (17.5 ±2.5 mN)
Impédance de charge:	47 kΩ to 100 kΩ
Poids:	6.0 grammes (cellule seule)
Pointe de lecture de remplacement:	EPS-270SD

SL-B3/K

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■ PARTS IDENTIFICATION

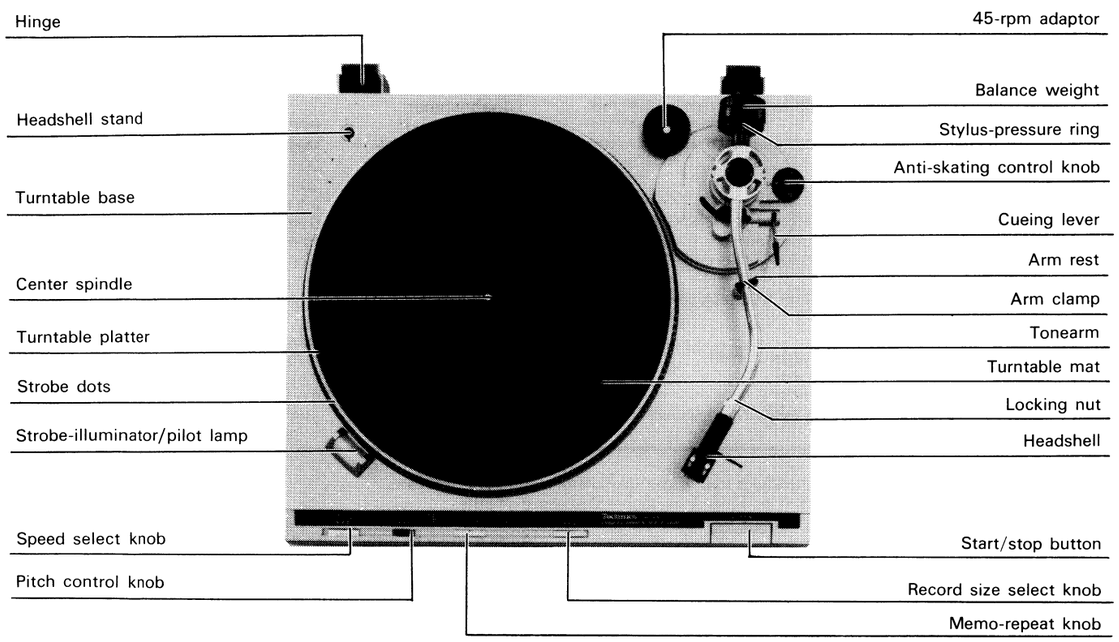


Fig. 1

■ FEATURES

- **Front panel controls provide exceptional convenience**
- **"TNRC"* base material provides an acoustic shield**
  "TNRC" . . . . . Technics Non-Resonance Compound
- **Electronic speed switching**
- **Pitch control with illuminated stroboscope**
- **Viscous-damped cueing**
- **Anti-skating control**
- **Hinged, detachable dust cover**
- **Auto-start, auto-stop auto-return and programmable repeat play make the SL-B3 a pleasure to use.**
  Since everything is automatic, you don't need to touch the tonearm unless you want to move to a particular cut on the record. The "memo-repeat" feature allows you to repeat a record up to six times, or indefinitely if you prefer.

■ HOW TO OPERATE

Manual play of a record

1. Place a record on the turntable mat.
2. Set the speed select knob to the desired record speed. **(See Fig. 2.)**

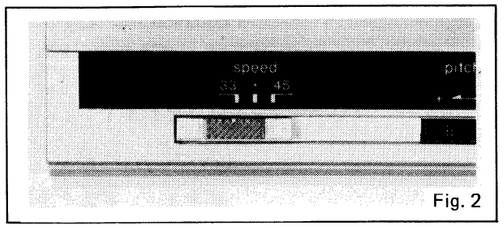


Fig. 2

3. Remove the stylus protector, if your cartridge has a detachable one.
4. Release the arm clamp.
5. Set the cueing lever to the up position. **(See Fig 3.)**

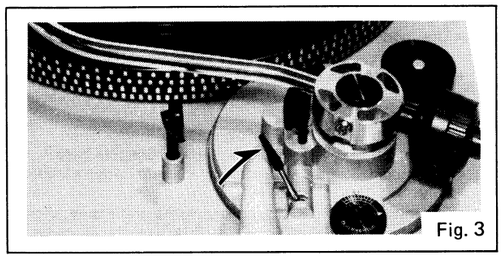


Fig. 3

6. Move the tonearm over the desired grove.
   The strobe-illuminator/pilot lamp will light up and the turntable platter will start rotating.
7. Set the cueing lever to the down position. **(See Fig. 4.)**
   The tonearm will descend slowly onto the record and play will begin.
8. When play is finished, the tonearm will automatically return to the arm rest (auto-return) and the turntable platter will stop rotation.
   If the unit is not to be used for some time, set the speed select knob to the neutral "●" position.
   Attach the stylus protector again, if you have one, to guard the stylus tip from damage.

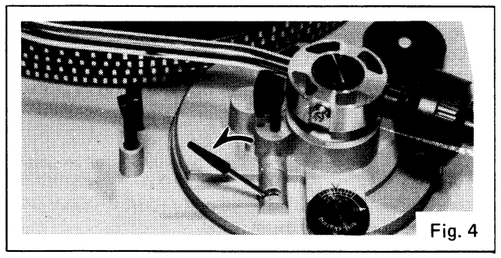


Fig. 4

Automatic play

1. Set the speed select knob in the same manner as in manual play and release the arm clamp.
2. Set the record size select knob to the diameter of the record (7" [17 cm], 10" [25 cm], or 12" [30 cm]) you wish to play. **(See Fig. 5.)**

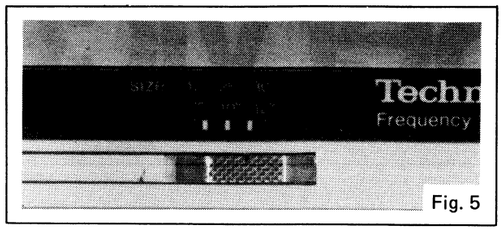


Fig. 5

3. Push the start/stop button. **(See Fig. 6.)**

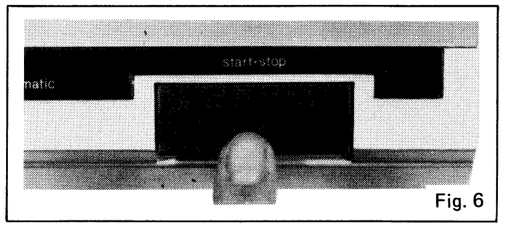


Fig. 6

The tonearm will move automatically over the lead-in groove and descend slowly onto the record (auto-start). Play will begin.

4. When play has finished, the tonearm will automatically return to the arm rest (auto-return).

Repeat play of a record

1. Set the "**memo-repeat**" knob to the desired number of times you wish to play. **(See Fig. 7.)**

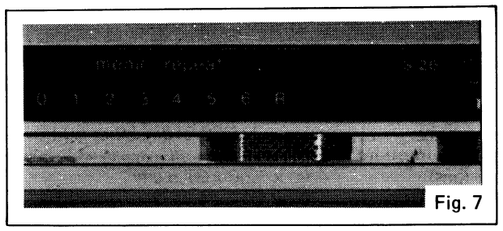


Fig. 7

"**R**" position enables you to repeat play continuously.
Note:
The "**memo-repeat**" knob may be turned either clockwise or counterclockwise, except during automatic start or automatic return cycle.

2. Start play in the same way as for automatic play.

How to stop play

Push the start/stop button.
The tonearm automatically returns to the arm rest, and the turntable stops rotating.

How to suspend play

Set the cueing lever to the up position.
The stylus tip of the cartridge will be lifted from the record.

When you play a 45-rpm record with a large center hole

Place the 45-rpm adaptor on the center spindle. Set the speed select knob to the "**45**" position.

■ ADJUSTMENTS

Adjustment of arm-lift height (See Figs. 8 and 9.)

The arm-lift height (distance between the stylus tip and record surface when cueing lever is raised) has been adjusted at the factory before shipping to approximately 5 to 10 mm.

If the clearance becomes too narrow or too wide, turn the adjustment screw clockwise or counterclockwise, while pushing the arm lift down.

Clockwise rotation

– distance between the record and stylus tip is decreased.

Counterclockwise rotaion

– distance between the record and stylus tip is increased.

Note:

As the adjusting screw has a hexagonal head be sure to make the adjustment while depressing the arm lift, or the screw will not move freely.

Also be sure that the hexagonal head retracts correctly into the arm lift when the latter is released.

Adjustment for automatic start position (See Fig. 10.)

(remove the rubber cap.)

In cases where the stylus tip sets down outside of the record

– **Rotate clockwise.**

In cases where the stylus tip sets down too far in the recorded groove

– **rotate counterclockwise.**

Adjustment for automatic return position (See Fig. 10.)

(Remove the turntable mat.)

In cases where the tonearm tends to return before the playing has finished

– **rotate clockwise.**

In cases where the tonearm fails to return after the last groove of the rocord has been played

– **rotate counterclockwise.**

Speed adjustment (with pitch-control knob) (See Fig. 11.)

Strobe dots are set on the rim of the turntable platter according to the power-line frequency and the speed of the records.

Make adjustment, referring to the strobe-dot indication.

1. Set the speed select knob to the speed to be adjusted.
2. Release the arm clamp and move the tonearm toward the record.
   The strobe-illuminator/pilot lamp will light up and the turntable platter will rotate.
3. While turning the pitch-control knobs either to the "+" side or "–" side, adjust so that the strobe dots of the turntable platter look as if they were stationary. This represents the correct speed.

   "+" direction

   The speed of the turntable platter will increase. Turn the knob in this direction if the strobe dots seem to be **"falling back"**, i.e. seem to be moving counterclockwise. When the dots appear to be stationary, turntable speed is accurate.

"–" direction

The speed of the turntable platter will decrease. Turn the knob in this direction if the dots seem to be **"running ahead"**, i.e. seem to be moving clockwise, until they appear stationary.

Moreover, the pitch control knob can be used for both 33-1/3 rpm and 45 rpm.

Adjustment is to be made according to the selected speed (33-1/3 rpm or 45 rpm).

Note:

Strobe dot pattern

The strobe-illuminator/pilot lamp of this unit employs the standard commercial power source. The frequency of such power source, when actually measured has a fluctuation of about 0.2%.

As such a fluctuation of the power source affects the strobe illuminator, the strobe dot pattern also seems to fluctuate to a certain extent. But the unit is not affected by these fluctuations of the power source, since a DC motor is employed.

In other words, rotation of the platter will be constant, and slight shifts in the movement of the dots simply reflect normal drift in the power-source frequency.

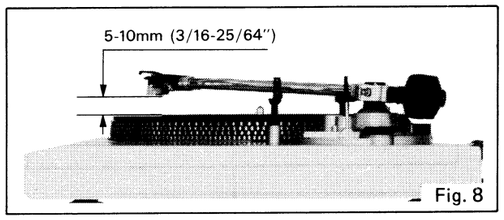


Fig. 8

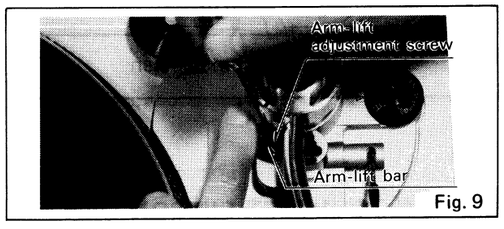


Fig. 9

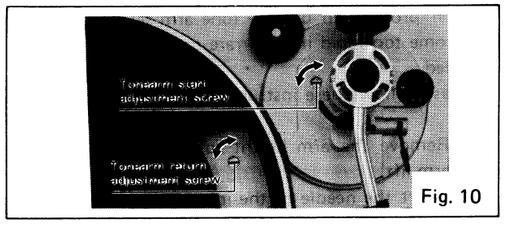


Fig. 10

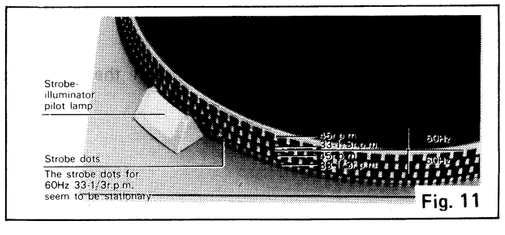


Fig. 11

■ JUSTIERUNGEN

Justierung der Tonarmlifthöhe (Vgl. Abb. 8 und 9 .)

Die Tonarmlifthöhe, d.h. der Abstand zwischen Nadelspitze und Schallplattenoberfläche, wenn der Lift-Hebel angehoben ist, ist werkseitig auf ungefähr 5–10 mm eingestellt worden.

Falls der Abstand zu groß oder zu klein wird, drehen Sie die Justierschraube im Uhrzeigersinn oder Gegenuhrzeigersinn während Sie die Tonarmliftführung nach unten drücken.

Drehung im Uhrzeigersinn

– Der Abstand wird kleiner.

Drehung im Gegenuhrzeigersinn

– Der Abstand wird größer.

Anmerkung:

Da die Justierschraube einen Sechskantkopf hat, muß die Tonarmliftführung während des Justierens unbedingt gedrückt gehalten werden, damit sich die Schraube leicht drehen läßt.

Vergewissern Sie sich, daß der Sechskantkopf in die Tonarmliftführung zurückkehrt, wenn diese losgelassen wird.

Justierung des Tonarmaufsetzpunktes der Automatik (Vgl. Abb. 10.)

(Die Gummikappe abnehmen)

Falls der Aufsetzpunkt außerhalb der Platte liegt.

– **Im Uhrzeigersinn drehen.**

Falls der Aufsetzpunkt im Wiedergabeteil der Schallplatte liegt.

– **Im Gegenuhrzeigersinn drehen.**

Justierung des Abschaltpunktes der Automatik (Vgl. Abb. 10.)

(Die Plattentellerauflage abnehmen.)

Falls der Tonarm zu früh zurückkehrt.

– **Im Uhrzeigersinn drehen.**

Falls der Tonarm nach Erreichen der Auslaufrille nicht zurückkehrt.

– **Im Gegenuhrzeigersinn drehen.**

Drehzahl-Feineinstellung (mit dem Drehzahl-Feineinsteller) (Vgl. Abb. 11.)

Die Stroboskoppunkte sind auf dem Plattentellerrand entsprechend der Stromfrequenz und der Drehzahl der Schallplatten angebracht.

Richten Sie sich bei der Drehzahl-Feineinstellung nach dem Stroboskopbild.

1. Stellen Sie den Drehzahl-Wahlschieber auf die zu regulierende Drehzahl ein.
2. Lösen Sie die Tonarm-Arretierklammer, und schwenken Sie den Tonarm zur Schallplatte.
   Die Stroboskoplampe/Einschaltkontrolle leuchtet auf, und der Plattenteller dreht sich.
3. Regulieren Sie durch Drehen des Einstellknopfes in "+" oder "–" Richung solange, bis die Stroboskoppunkte den Anschein vermitteln, daß sie stillstehen. Dieser Zustand stellt die korrekte Drehzahl dar.

"+" Richtung

Die Drehzahl des Plattentellers erhöht sich. Drehen Sie den Knopf in diese Richtung, wenn die Stroboskoppunkte "zurückzufallen", d.h. im Gegenuhrzeigersinn zu fließen scheinen. Wenn die Punkte stillzustehen scheinen, ist die Geschwindigkeit korrekt.

"–" Richtung

Die Drehzahl des Plattentellers verringert sich. Drehen Sie den Knopf in diese Richtung, wenn die Stroboskoppunkte "vorauszueilen", d.h. im Uhrzeigersinn zu fließen scheinen. Regulieren Sie, bis sie stillzustehen scheinen.

Der Drehzahl-Feineinsteller kann zudem für beide Drehzahlen, 33-3/1 und 45 U/min, benutzt werden. Die Feineinstellung wird entsprechend der gewählten Drehzahl (33-1/3 oder 45 U/min) vorgenommen.

Anmerkung:

Stroboskoppunktemuster

Die Stroboskoplampe/Kontrollampe dieses Gerätes arbeitet mit normalem Netzstrom. Die Netzfrequenzschwankungen liegen in einem Bereich von ungefähr ±0.2%.

Da eine solche Netzschwankung die Stroboskoplampe beeinflußt, scheint das Punktemuster auch zu einem gewissen Grad zu fließen. Die Drehzahl des Plattentellers wird jedoch durch diese Schwankung nicht beeinflußt, da ein Gleichstrommotor den Plattenteller antreibt. Anders ausgedrückt, die Umdrehungsgeschwindigkeit des Plattentellers bleibt konstant, und die geringfügige Bewegung der Stroboskoppunkte entspricht lediglich der normalen Schwankung der Netzfrequenz.

■ REGLAGES

Mise au point de la hauteur de l'élévateur du bras (Voir Figs. 8 et 9 .)

La hauteur de l'élévateur du bras (distance entre l'extrémité de la pointe de lecture et la surface du disque lorsque le levier de relevage du bras est soulevé) a été réglée en usine avant son départ sur une valeur approximativement 5 à 10 mm. Si l'écartement devient trop étroit out trop large, tourner la vis de réglage dans le sens des aiguilles d'une montre ou en sens inverse, tout en abaissant l'élévateur du bras.

Rotation dans le sens des aiguilles d'une montre.

– La distance entre la surface du disque et l'extrémité de la pointe de lecture diminue.

Rotation dans le sens contraire des aiguilles d'une montre.

– La distance entre la surface du disque et l'extrémité de la pointe de lecture augmente.

Nota:

Comme la vis de réglage possède une tête hexagonale, s'assurer d'effectuer la mise au point tout en abaissant l'élévateur du bras, sinon la vis ne bougera pas librement. Vérifier aussi que la tête hexagonale se retire correctement dans l'élévateur du bras quand ce dernier est libéré.

Mise au point pour une position de marche automatique. (Voir Fig. 10.)

(Retiere le capuchon en caoutchouc.)

Dans le cas où la tête de la pointe de lecture s'abaisse en dehors du disque.

– **Déplacer dans le sens des aiguilles d'une montre.**

Dans le cas où la tête de la pointe de lecture s'abaisse trop loin du sillon enregistré.

– **Déplacer dans le sens contraire des aiguilles d'une montre.**

Mise au point pour une position de retour automatique (Voir Fig. 10.)

(Retirer le tapis du plateau de lecture.)

Dans le cas où le bras de lecture tend à revenir avant que l'audition ne soit terminée.

– **Déplacer dans le sens des aiguilles d'une montre.**

Dans le cas où le bras de lecture ne peut revenir en arrière après que le dernier sillon du disque ait été joué.

– **Déplacer dans le sens contraire des aiguilles d'une montre.**

Réglage de la vitesse (avec la manette de réglage de précision (Voir Fig. 11.)

Les points du stroboscope sont réglés sur le bord du plateau du tourne-disque en fonction de la fréquence de réseau et de la vitesse des disques.

Il faut effectuer le réglage de la vitesse en se référant aux indications des points du stroboscope.

1. Régler la manette sélectrice de vitesse sur la vitesse devant être mise au point.
2. Libérer le clip de retenue du bras et déplacer le bras de lecture vers le disque.
   La lampe-témoin/illuminomètre stroboscopique s'éclairera et le plateau commencera à tourner.
3. Tout en tournant la manette de réglage de précision suffisamment, soit dans le sens "+" soit dans le sens "–", ajuster de façon à ce que les points du stroboscope du plateau paraissent stationnaires.
   Cet état représente la vitesse correcte.

Sens "+"

La vitesse du plateau augmentera. Tourner la manette dans cette direction si les points stroboscopiques semblent "**reculer**", c-à-d. se déplacer dans le sens inverse des aiguilles d'une montre. Lorsque les points paraissent immobiles, la vitesse du plateau est exacte.

Sens "–"

La vitesse du plateau diminuera. Tourner la manette dans cette direction si les points stroboscopiques semblent "**s'écouler vers l'avant**", c.-à-d. se déplacer dans le sens des aiguilles d'une montre, jusqu'à ce qu'ils paraissent stationnaires.

En outre, le bouton de réglage précis de vitesse peut être utilisé à la fois pour le 33-1/3 et le 45 t/p.m.

La mise au point se fait selon la vitesse choisie (33-1/3 t/p.m. ou 45 t/p.m.).

Nota:

Image des points stroboscopiques.

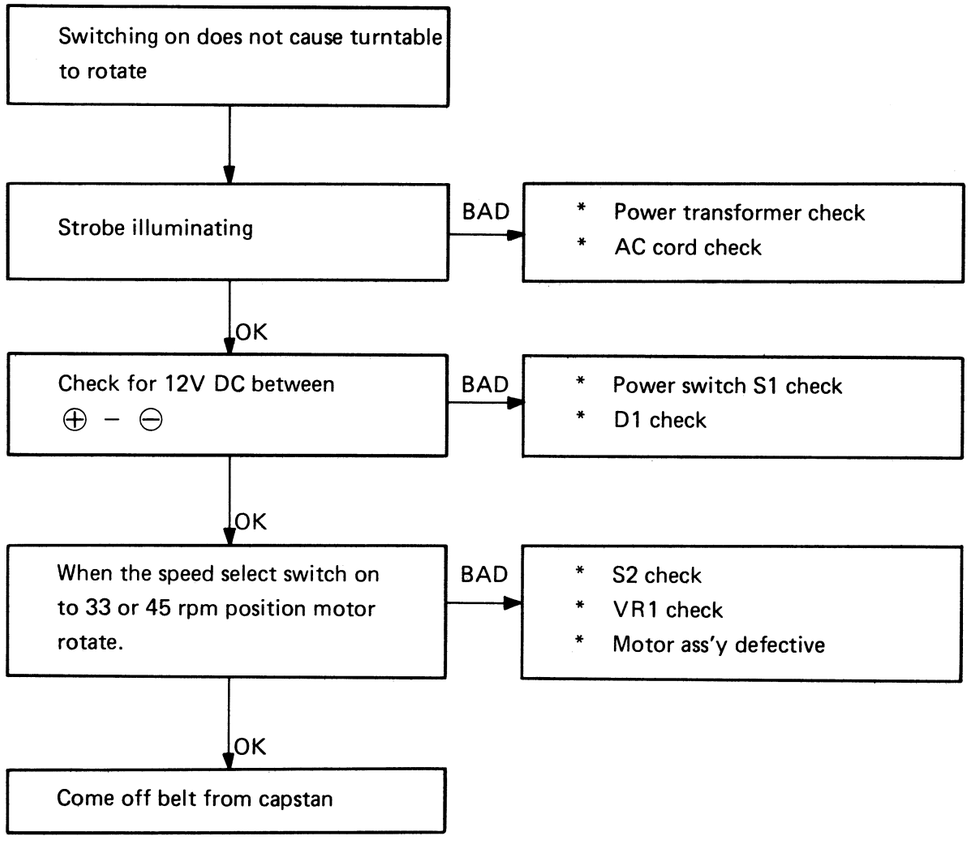
La lampe-témoin/illuminomètre stroboscopique de cet appareil utilise une alimentation commerciale standard.

La fréquence d'une pareille source d'énergie, lorsqu'elle est effectivement measuree, montre une variation d'à peu près 0.2%.

Comme une telle variation de la sburce d'énergie affecte l'illuminomètre stroboscopique, l.image des points stroboscopiques semble varier aussi sur une certaine étendue. Mais l'appareil n'est pas affecté par ces variations de la source d'énergie, étant donné qu'un moteur à courant continu est utilisé.

En d'autres mots, la rotation du plateau restera constante et les légers déplacements dans le mouvement des points ne reflètent simplement qu'une déviation normale dans la fréquence de la source d'énergie.

■ TROUBLE SHOOTING GUIDE

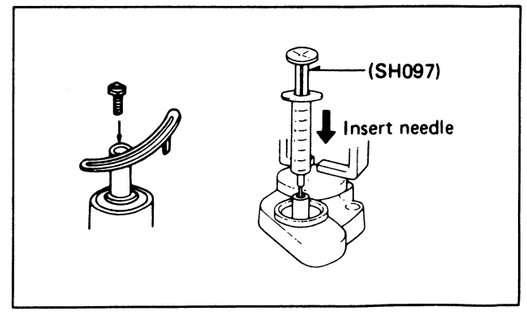


■ HOW TO INJECT SILICON OIL

After prolongued use the tone arm set down time may become too rapid in such rare case cueing oil should be added.

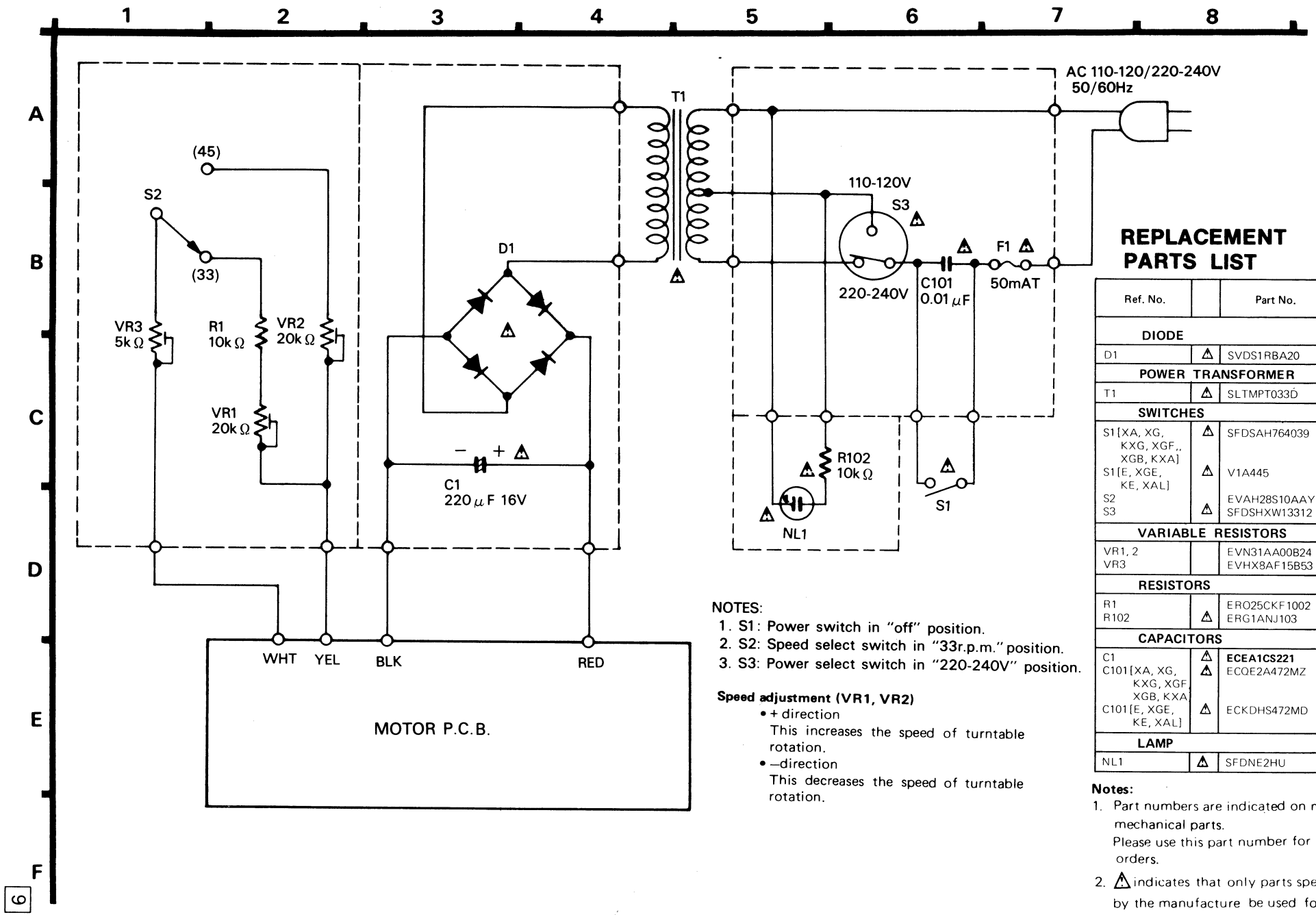
Please follow these instructions for applying the silicon oil:

1. Remove the arm height adjust screw to detach the arm lift.
2. Insert the needle of the injector into the cylinder of the arm lift shaft and inject a small amount of silicon oil.
3. Slowly remove the injector.
4. Re-install arm lift bar and attach the arm height adjust screw.
5. Adjust the arm lift height.



■ SCHEMATIC DIAGRAM

This schematic diagram may be modified at any time with the development of new technology.



NOTES:

1. S1: Power switch in "off" position.
2. S2: Speed select switch in "33r.p.m." position.
3. S3: Power select switch in "220-240V" position.

Speed adjustment (VR1, VR2)

- + direction
  This increases the speed of turntable rotation.
- –direction
  This decreases the speed of turntable rotation.

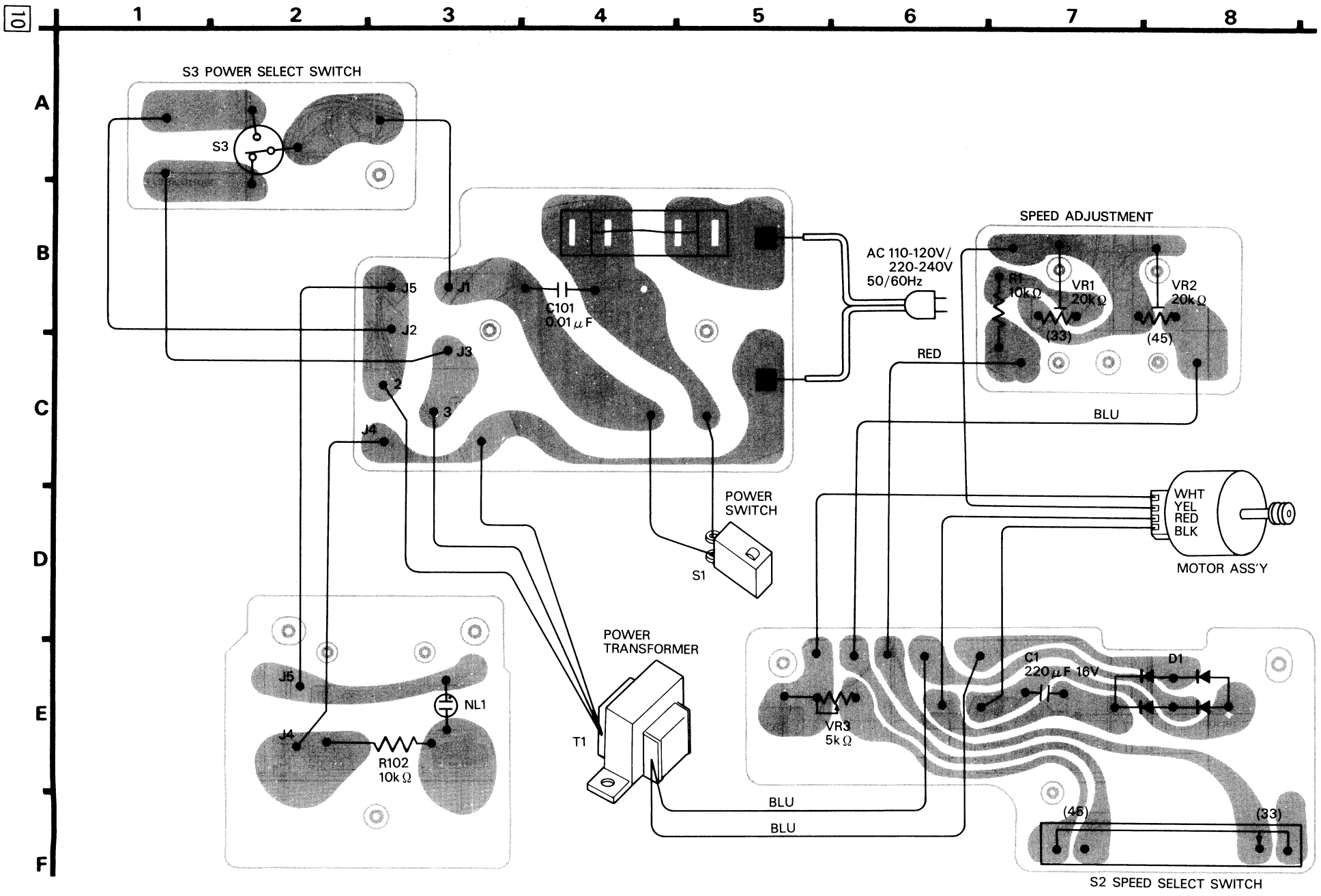
REPLACEMENT PARTS LIST

Ref. No.		Part No.
DIODE		
D1	⚠	SVDS1RBA20
POWER TRANSFORMER		
T1	⚠	SLTMPT033D
SWITCHES		
S1 [XA, XG, KXG, XGF,, XGB, KXA]	⚠	SFDSAH764039
S1 [E, XGE, KE, XAL]	⚠	V1A445
S2		EVAH28S10AAY
S3	⚠	SFDSHXW13312
VARIABLE RESISTORS		
VR1, 2		EVN31AA00B24
VR3		EVHX8AF15B53
RESISTORS		
R1		ERO25CKF1002
R102	⚠	ERG1ANJ103
CAPACITORS		
C1	⚠	**ECEA1CS221**
C101 [XA, XG, KXG, XGF, XGB, KXA]	⚠	ECQE2A472MZ
C101 [E, XGE, KE, XAL]	⚠	ECKDHS472MD
LAMP		
NL1	⚠	SFDNE2HU

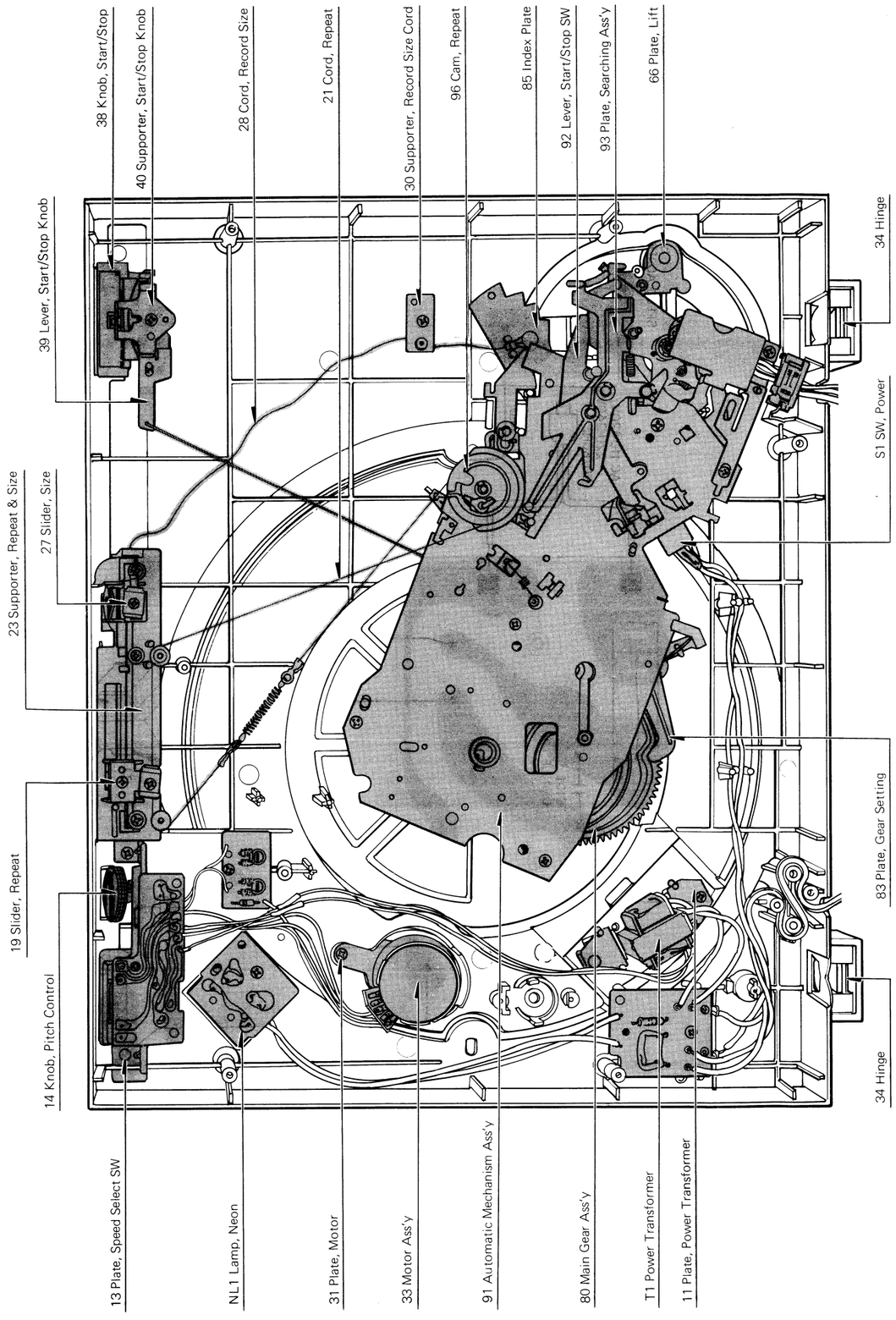
Notes:

1. Part numbers are indicated on most mechanical parts.
   Please use this part number for parts orders.
2. ⚠ indicates that only parts specified by the manufacture be used for safety.

■ PRINTED CIRCUIT BOARD WIRING VIEW



■ PARTS ARRANGEMENT DIAGRAM



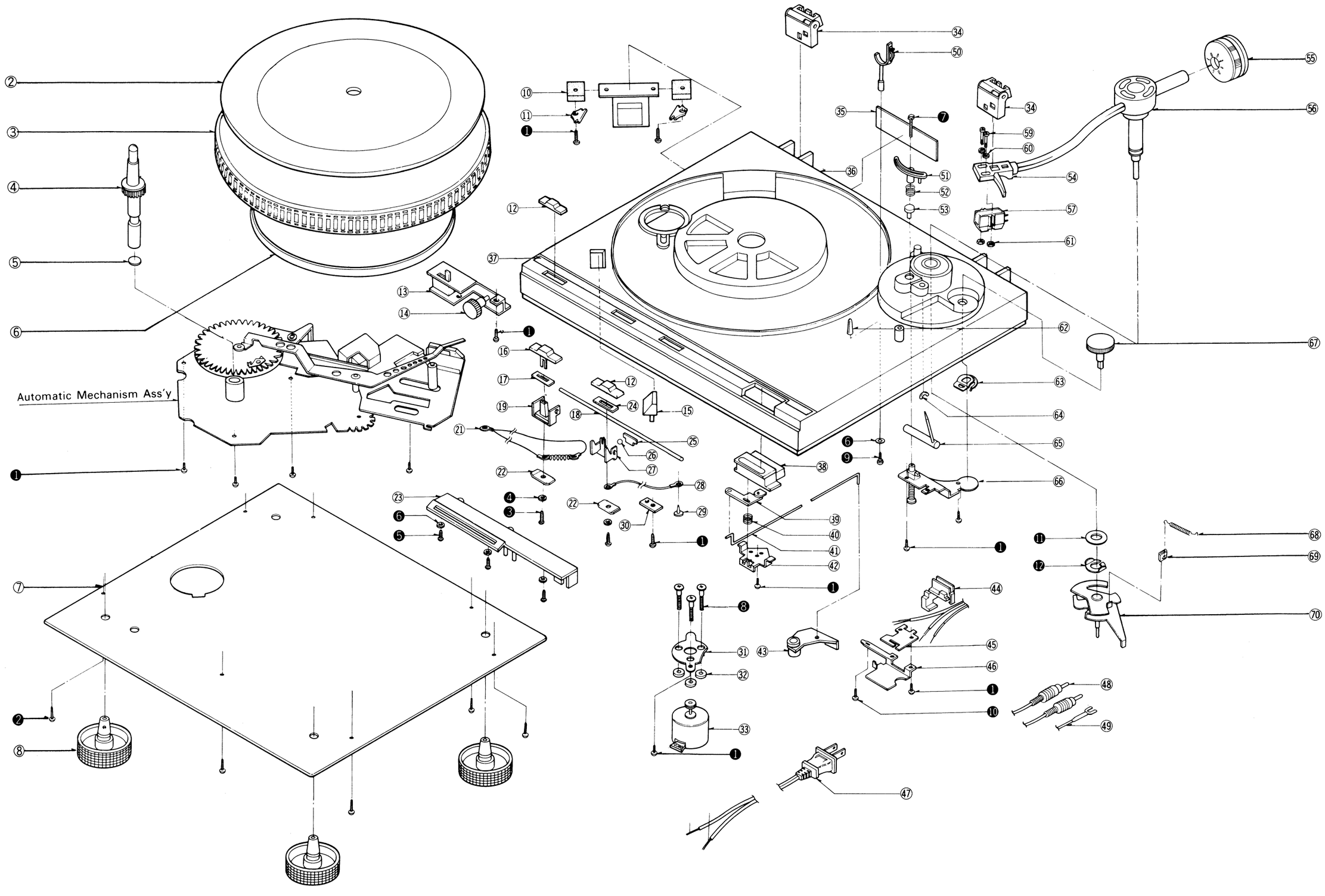
■ REPLACEMENT PARTS LIST (Mechanical Parts)

NOTES: 1. Part numbers are indicated on most mechanical parts. Please use this part number for parts orders.
2. ⚠ indicates that only parts specified by the manufacturer be used for safety.
3. SL-B3 (XA) → [XA] SL-B3 (XGE) → [XGE] SL-B3K (E) → [KE]
SL-B3 (XG) → [XG] SL-B3 (XAL) → [XAL] SL-B3K (XG) → [KXG]
SL-B3 (XGF) → [XGF] SL-B3 (E) → [E] SL-B3K (XAL) → [KXAL]
SL-B3 (XGB) → [XGB]

Ref. No.		Part No.	Part Name & Description
		CABINET and CHASSIS PARTS	
1		SFADD20–01E	Dust Cover
2		SFTGB20–01	Turntable Mat
3		SFTE301–02	Turntable
4		SFTJ202–01E	Shaft, Turntable
5		SFMZ301–01	Spacer, Shaft
6		SFGB321–1	Belt
7		SFAUB20–01	Bottom Board
8		SFGA202–01	Audio Insulator
9		SFXPB20–01	Pin, Audio Insulator
10		SFGCB20X01	Cushion, Power Transformer
11		SFUPB20–03	Plate, Power Transformer
12		SFKTB20–02	Knob, Operation
13		SFUPB20–02	Plate, Speed Select Switch
14		SFKTB20–03	Knob, Pitch Control
15		SFUM212–07	Cover, Neon
16		SFKTB30–01	Knob, Repeat
17		SFUPB30–05	Shutter B, Repeat Knob
18		SFXJB30–01	Rod, Supporter
19		SFUPB30–06	Slider, Repeat
20		SFUMB30–03	
21		SFUZB30–02E	Cord, Repeat
22		SFUPD20–02	Supporter, Repeat Cord
23		SFUMB30–02E	Supporter, Repeat & Size
24		SFUPB30–04	Shutter A, Size Knob
25		SFQPD30–01	Spacer, Supporter
26		SFYB5–32	Ball, Supporter
27		SFUPB30–03	Slider, Size
28		SFUZD30–01E	Cord, Record Size
29		SFUZQ30–04	Spacer, Record Size Cord
30		SFUPD30–03	Supporter, Record Size Cord
31		SFUPB20–04	Plate, Motor
32		SFGCB20–02	Rubber, Motor Cushion
33		SFMHB20–01E	Motor Ass'y w/Capstan
34		SFAT301–01A	Hinge
35	[XGE, XAL]	SFNNB30G01	Name Plate
35	[XA, XG, KXG, XGF, XGB]	SFNNB30X01	Name Plate
35	[E, KE]	SFNNB30S01	Name Plate
36	[KE, KXG]	SFACB30K01	Cabinet (Black)
36	[XA, XG, E, XGE, XGB, XAL]	SFACB30–01	Cabinet (Silver)
37		SFKKB30–01	Ornament, Cabinet
38		SFKTB20–01	Knob, Start/Stop
39		SFUMD20–01	Lever, Start/Stop Knob
40		SFQAD20–01	Spring, Start/Stop Knob
41		SFUZD30–01	Rod, Start/Stop
42		SFUPD20–03	Supporter, Start/Stop Knob
43		SFUMD30–02	Supporter, Operating
44		SFUM212–08	Clamper, Phono Cord
45		SFDP212–02	P. C. B., Phono Cord
46		SFUP212–12	Plate, Shield
47	[XA, E, KE, XG, KXG, XGF, XGB]	RJA23ZC	AC Cord
47	[XGE]	RJA45ZC	AC Cord
47	[XAL]	QFC1208M	AC Cord
48		SFDH212–01	Phono Cord
49		SFEL028–01E	Ground Wire
		TONEARM and ARM BASE	
50		SFKU212–01E	Arm Rest
51		SFPRT13004K	Lift Ass'y
52		SFQA829–03	Spring, Lift Ass'y
53	[XA, E, XGE, XG, XGF, XGB, XAL]	SFGK170–01	Cap, Rubber
53	[KE, KXG]	SFGK171F01	Cap, Rubber
54		SFPCC21101A	Head Shell
55		SFPWG21001K	Blance Weight
56		SFPAM21101A	Tonearm Ass'y
57		EPC270CK	Cartridge
58		EPS270ED	Stylus
59		SFPEV9801	Screw, Cartridge
60		SFPEW9601	Washer, Cartridge

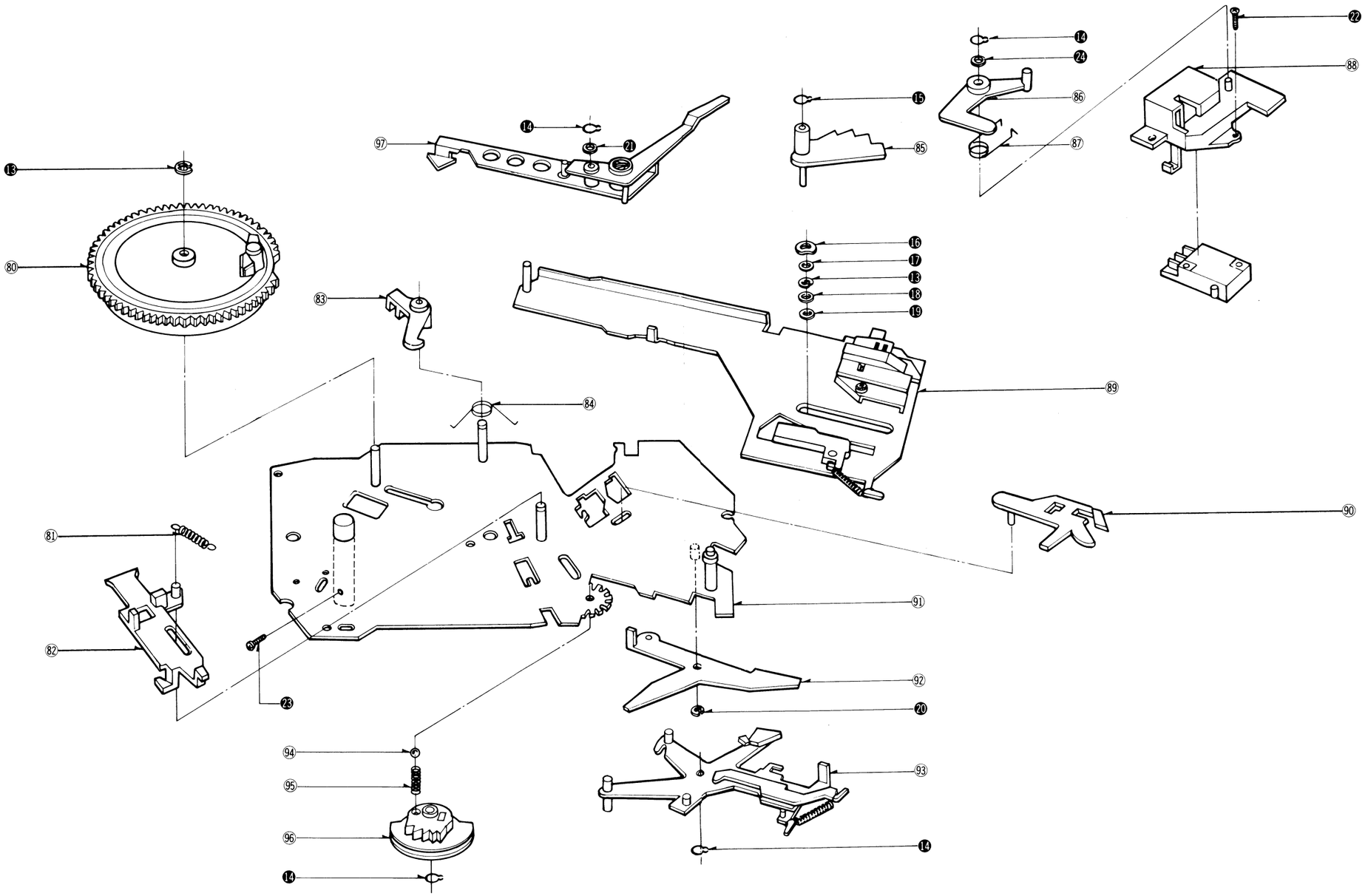
Ref. No.		Part No.	Part Name & Description
61		SFPEN3302	Nut, Cartridge
62		SFPAB12002	Knob, Cueing Lever
63		SFUP301–04	Supporter, Anti-skate Force Control
64		SFGZD20–02	Rubber, Cueing
65		SFPJL00101K	Lever, Cueing
66		SFUPH31–01A	Plate, Lift
67		SFPJK29001	Knob, Anti-skate Force Control
68		SFQH301–01	Spring, Anti-skate Force Control
69		SFUM301–04	Supporter, Anti-skate Force Control Spring
70		SFUPB30–01A	Tonearm Fixing Plate Ass'y
		AUTOMATIC MECHANISM ASS'Y	
80		SFUG202–11E	Main Gear Ass'y
81		SFQHD30–01	Spring, Stop SW Plate
82		SFUMQ30-14E	Plate, Stop SW
83		SFUM202–11	Plate, Gear Setting
84		SFQS202–11	Spring, Gear Setting
85		SFUMQ30–12	Index Plate
86		SFUMQ20–19	Plate, Brake
87		SFQSQ20–13	Spring, Brake Plate
88		SFUMQ30–18	Cover, Stop SW
89		SFUBB30–01E	Operating Plate Ass'y
90		SFUMQ20–16	Supporter, Stop SW
91		SFUKB30–01E	Automatic Mechanis n Ass'y
92		SFUMQ20–17	Lever, SW
93		SFUMQ30–11E	Plate, Searching Ass'y
94		SFYB5–32	Ball, Repeat Cam
95		SFQAQ30–01	Spring, Repeat Cam
96		SFUMQ30–13	Cam, Repeat
97		SFUCB30–01E	Actuating Plate Ass'y
		SCREWS, WASHERS and CIRCLIPS	
❶		**XTV3 + 10B**	Screw
❷		**XTS3 + 16B**	Screw
❸		**XSN3 + 8S**	Screw
❹		**XWA3B**	Washer
❺		**XTN3 + 20B**	Screw
❻		**XWG3**	Washer
❼		SFXG829–1	Screw
❽		SFXGB20–01	Screw
❾		**XTV3 + 14B**	Screw
❿		**XTN3 + 8B**	Screw
⓫		SFXWH31–01	Washer
⓬		SFXW301–02	Washer
⓭		**XUC5FT**	Circlip
⓮		**XUB4FT**	Circlip
⓯		**XUB6FT**	Circlip
⓰		SFXW831–5	Washer
⓱		SFPEW13005	Washer
⓲		SFXW130–13	Washer
⓳		SFXW623–2	Washer
⓴		**XUC3FT**	Circlip
㉑		**XWE4A10BW**	Washer
㉒		**XTV3 + 8B**	Screw
㉓		**XWG3**	Washer
		ACCESSORIES	
A1	[XA, XG, KXG, XGF, XGB, XAL]	SFNUB30X01	Instruction Book
A1	[E, KE]	SFNUB30S01	Instruction Book
A1	[XGE]	SFNUB30G01	Instruction Book
A2		SFWE212–01	Adaptor, 45 r.p.m.
A3		SFYF05A06	Polyethylene Bag
A4	[XA] only	SFDK119118	2P Plug
		PACKING PARTS	
P1	[XA, E, XGE, XG, XGB, XAL]	SFHPB30M01	Carton Box
P1	[KE, KXG]	SFHPB30K01	Carton Box
P1	[XGF]	SFHPB30C01	Carton Box
P2		SFHHB20–01	Pad, Front
P3		SFHHB20–02	Pad, Rear
P4		SFHS320–01	Pad, Corner
P5		SFHDB20–01	Pad, Top
P6		SFHD212–02	Pad, Turntable
P7		SFYH60X60	Polyethylene Bag, Player Unit & Dust Cover
P8		SFYH40X45	Polyethylene Bag, Turntable
P9		SFYF05A06	Polyethylene Bag, 45 r.p.m. Adaptor

■ EXPLODED VIEWS



■ EXPLODED VIEWS

AUTOMATIC MECHANISM ASS'Y



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